# PPI and Antibiotic Usage as Interventional Factors in Direct Screening of Biopsy Samples in Patients with Dyspepsia

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**Background & Objectives:** Helicobacter pylori is recognized as an important human pathogen. So a reliable diagnosis is crucial for patients with H. pylori-related diseases. Various factors can affect the results of detection Methods. In this study we tried to show the effects of proton pump inhibitor (PPI) and antibiotic usages on the results of direct H. pylori screening Methods, including RUT (rapid urease test), culture and PCR for glmM.

**Methods:** 100 gastric biopsy samples from patients were obtained by upper gastrointestinal endoscopy. The samples were analyzed by RUT, culture on Brucella agar medium at microaerophilic conditions and specific PCR. Results were compared in three groups: with conventional therapy (PPI, bismuth, amoxicillin and metronidazole), only PPI Therapy and without any therapeutic medication during the sampling processes.

**Results:** Among 65 patients without therapeutic medication, H.pylori infection was confirmed by RUT, culture and PCR Methods in ranges of 87.7%, 90.7% and 90.7% respectively. This result for 16 patients with conventional therapy (PPI, bismuth, amoxicillin and metronidazole) was detected in a frequency of 25%, 18.75% and 25%.But 19 patients that used only PPI, 63.1%, 57.9% and 68.4% respectively.

**Conclusion:** Discrimination true and false laboratorial results is important for clinical decisions. H.pylori culture, as a gold standard Methods, with RUT and PCR are general techniques in the infection- establishment. it seems that their sensitivity reduce after antibiotic or PPI therapy. So application of these tests can limit their usages. This study showed diversity of results between three Methods. The results showed the interventional role of PPI and antibiotic combinational usage in laboratorial results.

**Keywords:** *H. pylori*; PPI; Antibiotic; Detection Methods